

The Research Policy Statement of the Medical Library Association:

The Research Imperative



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The Research Imperative

The Research Policy Statement of the Medical Library Association

When the Medical Library Association (MLA) issued *Using Scientific Evidence to Improve Information Practice* in 1995 as a call to action for health sciences librarians to become "creators, managers, and active users of" scientific evidence, the policy statement (one of the first of its kind for a library association) envisioned research as a "foundation for excellence in the profession, for new and expanding roles for health sciences librarians, and for attracting top people to the field" [1].

Their vision and call to action were prescient. In the past ten years, hospital and academic health sciences librarians have come to understand and embrace their role in evidence-based medicine (EBM). Today, health sciences librarians with a solid understanding of the biomedical research literature routinely read and critically appraise the journal literature for their users. Some librarians have been involved in large research grants where they can apply "information technology, theory, and practice to ...safeguarding patient-specific data, linking patient data to scientific knowledge; and aggregating and analyzing patient data within and across institutions" [1]. To a great extent *Using Scientific Evidence to Improve Information Practice* remains a viable and compelling statement of the importance of research to health information practice.

Why Revise?

Using Scientific Evidence to Improve Information Practice provided the construct under which MLA encouraged and enabled many health sciences librarians to engage in research initiatives that contribute to excellence in health information practice (Appendix 1). With the Research Imperative, the present MLA Task Force on Research Policy Statement Revision reaffirms this earlier vision while focusing it on the creation of a culture where "analysis and application of a health information research knowledgebase" [1] is commonplace—where health information practitioners/librarians, just like the health care practitioners they serve, use the best available evidence when making a decision. Recognizing that the conditions are not yet fully in place for this to happen, this statement presents the challenges and outlines MLA's roles and responsibilities independent of and in conjunction with key stakeholders to develop a culture where applying and creating research-based evidence are the norm rather than the exception among health information professionals. This is the association's research imperative.

How to Revise?

Faced with the challenge of revisiting the original statement, the MLA Task Force on Research Policy Statement Revision decided early on it needed evidence on which to base its actions. Should the policy be merely updated or re-conceived and rewritten? In addition to an extensive literature review (Appendix 2) and the Open Forums held at MLA '05 and MLA '06, fifty-one key informant interviews were conducted by task force members late in 2005 (Appendix 3). Key informants included library educators, academic medical library directors, hospital librarians, *Bulletin of the Medical Library Association* (BMLA)/*Journal of the Medical Library Association* (JMLA) editors, medical informatics researchers, and international members of the evidence-based library and information practice (EBLIP) community. Six themes emerged from these interviews.

- **Creation of a Culture of Research:** The continued growth and development of the profession and individual professionals requires the creation and use of a research knowledgebase.

- **The Challenge:** The conditions (e.g., resources, training, funding) do not currently exist in sufficient quantities to support the research imperative.
- **Domains of Research:** Critical research questions are all around us and need to be identified and pursued, and the results shared broadly.
- **Research Skills Set:** Whether published research is used to provide information service to end users or to improve their own practice of librarianship, all health information practitioners need the ability to analyze and appraise the research literature.
- **Roles of Stakeholders:** Responsibility for the research imperative is shared across the community of practice and includes individual health information professionals, MLA, graduate schools of library and information science, employers, funding agencies, and partners.
- **Measuring Progress:** As part of its strategic planning process, MLA should annually identify ways it can advance the research imperative and give an accounting of progress in this area.

These themes serve as the foundation on which the task force based this revision. While affirming the continuing value and relevance of *Using Scientific Evidence to Improve Information Practice*, the Research Imperative chooses to concentrate on the importance of all health information professionals incorporating evidence into their information practice. It asserts that in today's complex information landscape research is a survival skill; that working collaboratively yields more meaningful results; that the results of smaller local findings are valuable when broadly shared; that while not all research needs to be grant funded, more support needs provided for applied research in information practice; and finally that conducting research is personally and professionally rewarding.

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Creating a Culture of Research

An imperative underpins every profession—writers write, teachers teach. The imperative for librarians is “finding the best answer,” that is, the credible answer that draws from a reliable knowledgebase.

Librarians know and understand research. As information professionals, librarians are committed to finding the right information for the right person at the right time. Health sciences librarians engage in the research process with their customers because doing so contributes to positive patient outcomes, advances scientific knowledge, and ultimately leads to improved population health. MLA, through the Research Imperative, will support health sciences librarians in extending this commitment, this core value. And over the next five years, the association will provide opportunities for members to reach a broader range of questions and play a more integral role in developing evidence for institutional decision making.

If the Research Imperative is successful in creating a "research" culture, when MLA next reviews its research policy statement, the number of MLA members participating at all levels of the continuum of research activities open to them will have significantly increased. It will be routine for librarians in clinical settings to provide essential research support, including critical appraisal, for health practitioners. Institutional support for information resources and services in all health sciences settings will be stronger because of data collected

through evaluation studies that clearly demonstrate their value to and impact on users. The health information knowledgebase will be a rich source of evidence for information practitioners.

Consequently, it will be the norm for health sciences librarians in any setting to apply the best research evidence in their own health information practice. When necessary, they will design and conduct their own applied research studies; share their findings with others through papers and posters at professional meetings, MLA's Center for Research and Education (CORE) digital repository, or the published literature; and add to the profession's knowledgebase. A significant number of health sciences librarians will have established research collaborations outside the library. A visible cadre of MLA members, experienced researchers, principle investigators (PIs), and co-PIs on National Institutes of Health/National Library of Medicine (NLM) grants will serve as role models and train other professionals. Librarians will be essential members of multidisciplinary teams in their institutions, contributing to a better understanding of the broad range of information management and information policy questions in the health care environment.

In clinical research settings a growing number of health information professionals/informationists will contribute to the research design, data collection, and analysis of their clinical research teams and will coauthor the papers or presentations that derive from these studies. With a dynamic and robust body of evidence, ours will be a profession of reflective practitioners (those who thoughtfully consider their own experiences and apply this knowledge to practice), where evidence is identified, applied, and assessed in a continuous loop of quality improvement with research as the critical underlying construct.

The Research Imperative is MLA's commitment to creating a supportive culture that assures the vital presence and continued growth of both individuals and the profession in the realm of information research. To make this vision possible, MLA will encourage each member's participation in the profession's research. It will foster the conditions for developing a full suite of research initiatives from applied research in small settings to examination of broadly relevant research questions. In doing so, MLA will actively advance the creation of a rich body of evidence that health information practitioners, researchers, and theorists find valuable. By providing opportunities to learn and practice these applied research skills, it also will prepare health sciences librarians to contribute significantly to information solutions in their institutions and in the larger health care community.

MLA's Research Imperative vision is guided by the association's Strategic Plan [1], which identifies research in health information science as a key part of the association's mission. Its inspiration is the association's core value, "to advance health information research and evidence-based practice" [1]. And, in conjunction with MLA's educational policy statement, Competencies for Lifelong Learning [2], it hopes to call attention to the knowledge, skills, and abilities that health information professionals need to assure their future.

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Creating the Health Information Knowledgebase

Health sciences librarians have a long history of supporting health professionals engaged in evidence-based practice. Building on the foundation provided by EBM, many practitioners in other fields such as nursing, education, social work, health policy, and health care management are also taking an evidence-based approach to their work. While providing information support to all types of evidence-based practitioners continues to be an essential component of health sciences librarianship, especially for those working directly with users, some of the same principles—basing decisions on the best available evidence—apply to the practice of librarianship. Although the types of questions, decisions, and research methods may be different for EBLIP compared to EBM, the rationale for health practitioners and health sciences librarians to use the best available evidence is similar [1].

Recent years have seen major milestones in the evolution and dissemination of the evidence-based practice concept (see Appendix 1 for a complete list). Booth, Brice, Eldredge, and others have developed the intellectual underpinnings for the field (Appendix 2). Events such as the biennial “International Conference in Evidence-based Library and Information Practice” and the publication of the open access journal, *Evidence Based Library and Information Practice*, signal the growing awareness of and interest in this concept. As a result of NLM's initiatives, evaluation of resources and services to assess their impact and value are also more common. These initiatives include the establishment of the National Network of Libraries of Medicine (NN/LM) Outreach Evaluation Resource Center at the University of Washington, a seminal publication on planning and evaluating health information outreach [2], and NN/LM's emphasis on evaluating its consumer and public health outreach efforts.

Despite these advances, the profession of librarianship has not yet developed a culture of research and assessment [3]. And as librarians look to the literature for evidence they find little on which to draw. As the editor of *Evidence Based Library and Information Practice* noted, “rather than being able to find, appraise, and implement existing research, practitioners are finding themselves in the position where they have to design and carry out original research in order to obtain applicable evidence” [4]. And, as Plutchak noted, “we ... need to spend time testing what we think we know and validating what we think we have proved. Single studies do not accomplish that. We have come a long way, as a profession, in improving our research skills and our understanding of the importance of research. But we still have considerable work to do in shaping our projects so that they contribute to building a body of evidence” [5]. However, many librarians do not have the requisite skills or support to do so.

At present, much of the library literature is of little use to anyone wishing to engage in evidence-based practice. The research done in the area of informatics or information science as well as the research conducted by library educators and doctoral candidates is rigorous and well designed, but findings often are not readily applicable in practice settings such as hospitals or even academic libraries. Few academic medical librarians apply for and receive research grants or contracts [6]. Those who do, may report findings with greater relevance to their cohorts as they plan for the future, but their findings are rarely applicable to immediate questions that arise in practice and are almost never replicated. For the most part, even articles that do address the real questions of practicing librarians produce the lowest level of evidence, the descriptive case study. These case studies seldom build on earlier similar studies or use existing methodologies, all of which makes them difficult to compare. Few if any cohort studies or randomized controlled trials are reported. A handful of meta-analyses and systematic reviews, the highest levels of evidence, have been published [7].

Given this picture, it is imperative for librarians, and health sciences librarians in particular, to recognize that the knowledge, skills, and personal attributes they employ in the service to their users have equal relevance in their own professional practice. Just as health practitioners have come to acknowledge the importance of identifying, understanding, and using the best available evidence for questions related to diagnosis, therapy, and prognosis, so librarians must adopt a similar perspective when questions related to intervention, prediction, and exploration arise in their practice. All library professionals in all roles and settings need to identify, understand, and use the research of others and whenever possible share the findings of their own local studies. To make them worth sharing, they must apply rigor in framing an answerable question, selecting and implementing the most appropriate methods, collecting data, analyzing the results, drawing conclusions, and communicating their findings.

On their own, individual librarians cannot create a culture where using and or conducting research is common professional practice. They will need the support of their professional colleagues, facilitated by MLA; the administrators for whom they work; their home institutions; library educators willing to amend curricula; and funding agents that recognize the importance of sponsoring applied research. These efforts in aggregate are needed to encourage a culture where reliance on research for decision making is the norm. Such a culture has the potential to benefit them all, not the least of which is the individual librarian. As Lindsay Glynn noted in her editorial, "The application of EBL can not only save time and money, but can also position information professionals as the highly competent researchers and prolific writers that we are" [4].

References

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Domains of Research

The context of health information research today is broadening to include not only the health care field but also changes in what the meaning of information is, in how information is procured and used, in how we learn and how we teach, and in what the options for scholarly communication are. In addition, new technologies, the

economy, and world events, which significantly affect the environment and public health, drive demand for quality information. An international perspective is required. New roles for librarians are emerging.

In this increasingly complex information landscape, overarching knowledge domains help define the profession. Domains of health sciences librarianship complement the fields of medical informatics, information science, and public health. Questions focused on effectively identifying, contextualizing, synthesizing, sifting, structuring, disseminating, and using information to improve health care are the research problems for health sciences information practitioners.

Domains of knowledge in health sciences librarianship were identified by Koufogiannakis et al. [1], Banks et al. [2], Perry et al. [3], and Dalrymple [4]. These resources, along with the key informant interviews conducted during the background research for this policy include but are not limited to the following domains for health information research:

- community dimensions of information practice
- effective information dissemination and delivery strategies
- health information structure, acquisition, and use
- information behaviors including human–technology interaction
- information contexts and meaning
- information policy and standards
- information technologies and their transformational nature
- knowledge translation
- leadership and organizational change
- marketing, communications, and advocacy
- systems thinking
- teaching and learning

Domains of knowledge ground the profession and provide the larger context and meaning. They represent the summation of the profession’s work. Continuing to refine these domains and recognizing them in the community of practice helps advance opportunities for understanding the role of the profession and its research strengths. (For examples of the types of real world questions that these domains encompass, see Eldredge [5].)

The Research Imperative, like MLA's first research policy, is a statement of the values, rationale, and challenges for the role of research in health information practice. The specific research topics of interest to the association are often time-bound and contextually driven. Consequently, identifying specific domains for study is not the objective of this policy statement. However, research topics of high priority to the association may be issued periodically.

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Research Skills Set

Health information professionals use published research to provide information services to their users; collaborate with other health professionals in completing research projects; make decisions in their own profession; and initiate, complete, and implement their own research projects.

Whether using research from the information sciences or other disciplines or conducting their own research projects, librarians need certain skill sets. The following skills are those that all health sciences librarians should strive to acquire. The skills are listed in three sections: those that are basic to all librarians, those that health sciences librarians will probably acquire in practice (advanced), and those that are more specialized. The more specialized skills may not be applicable to all librarians, but every librarian should be aware of them and know that they might need to acquire them to complete research or evaluation projects. These skills are the keys to the professional research imperative and are those that the MLA educational policy statement emphasizes in *Competencies for Lifelong Learning*.

Basic Skills

- ability to work collaboratively (as a peer) with multiple groups of people involved in research or its application
- ability to identify and define important questions or issues that need to be addressed (and are addressable)
- knowledge of quantitative and qualitative methodologies and which is best for a given situation or question
- knowledge of common statistical techniques and their application and interpretation

Advanced Skills

- ability to understand statistical interpretation of research and assess whether the statistics support conclusions
- ability to summarize research findings accurately, clearly, and succinctly for professional communication
- ability to evaluate research findings for validity and usefulness
- knowledge of the best methods for applying research findings to answer important questions (i.e., knowledge translation)

Specialized Skills

- ability to design, carry out, and apply research studies including institutional review board approvals, participant recruitment, data collection and analyses, report writing, and publication, etc.
- ability to obtain funding and resources for internal and external research projects

Librarians will use these skills to produce new knowledge and to integrate existing knowledge (translational purposes) both within and outside health librarianship and within and outside their home institutions.

MLA fully supports its members' need to identify, produce, and apply the best-available evidence when making important decisions and when supplying information to health care colleagues and others. Accordingly, MLA provides opportunities for its members to learn necessary skills through its programs and services. Individual members may also need to seek skills from other local and regional sources.

Who Will Make It Happen?

Just as the research important to MLA and its members covers a broad range of interests and concerns, the community of stakeholders is also diverse. Building on Hallam and Partridge's [1] discussion of the responsibilities of library educators, employers, individual professionals, and professional associations in EBLIP, this policy statement views stakeholders broadly. They come from a variety of disciplines and serve as essential partners in advancing the research that underpins the health information sciences knowledgebase and informs best practices. They include individual librarians and informaticians, NLM, graduate schools of library and information science, employers, and other associations and organizations. These stakeholders, with MLA, share interests in information policy, informatics, information practice, information access, delivery, services, and achievement of improved health care through quality information.

Stakeholders can help create a culture or environment in which evidence-based practice can flourish by supporting MLA and the health sciences library and information profession in the following areas:

- access to a broad range of relevant education and training
- advice and assistance for librarians embarking on research
- adequate research funding
- incentives for collaborative research
- flexible and supportive employment conditions
- application of research results to library and information sciences practice
- recognition of research work

As well as encouraging all stakeholders to communicate and promote MLA's research policy statement and research priorities to all their constituencies, MLA also encourages all stakeholders to play a role in helping to create and maintain this environment. The following are suggested roles for stakeholders to help advance MLA's research imperative.

Individual librarians and informaticians create the foundation on which the profession's knowledgebase is built. Personal rewards for research initiatives are plentiful and include professional growth, promotion and tenure, collegial recognition, and grant awards. Roles for members include:

- designing personal learning programs that include improving research skills and skills in critically appraising published research
- taking advantage of training, funding, and other research support services
- applying research results to library and information service practice, to the development of information policy, and to other information issues
- seeking out potential research collaborators in their institutions, other libraries, graduate schools of library and information science, and other organizations

- devoting professional time to conducting research, to facilitating health information research by others, or to participating in institutional quality or research initiatives
- disseminating results of critical analyses of research evidence, reports of applying research to practice, information about research in progress, and new research findings
- having a working knowledge of MLA's research policy statement and research priorities
- recognizing and encouraging the research activity of colleagues

As the nation's leading library for the health sciences, **NLM** has traditionally provided strong leadership for improved information practices and policies for the benefit of the public's health. In keeping with this tradition, NLM is encouraged to:

- continue its integration of MLA's research vision and priorities into NLM and NN/LM programs
- support research skills development among health sciences librarians through NN/LM programs and courses
- provide funding opportunities for a full range of applied research and outcomes studies

Graduate schools of library and information science are responsible for preparing the future workforce for best practices in an increasingly complex information landscape. EBLIP skills are fundamental to success in this environment for all librarians. Roles for the library and information science graduate school community include:

- inculcating EBLIP values and skills into all educational programs including formal coursework, continuing education, and internships
- actively engaging faculty in EBLIP research projects, emphasizing collaborative studies with practicing health sciences librarians

Employers can help ensure best practices in health information in their own institutions and optimal return on these investments by supporting and advancing EBLIP. Roles for employers include:

- creating and sustaining learning organizations that enable and reward the application of research principles and contributions to the knowledgebase
- providing opportunities for continuous learning and collaborative research within and outside the institution and multiple channels for reporting research findings
- developing mentoring programs in evidence-based practice for current staff as well as new professionals and graduate interns

Other associations and organizations share MLA's concern about providing quality health information and health care. Roles for these groups include:

- advocating for quality information policies and practices
- contributing perspectives that enrich MLA's research vision and research priorities
- maintaining open communication and supporting collaborative activities with MLA and its individual members to achieve common goals

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Recommendations

Below are six general recommendations derived from MLA's research policy statement that describe goals that MLA will strive to achieve over the coming years. Ongoing activities for each recommendation are included below to more clearly define the recommendations. A more specific list of suggested activities for each recommendation can be found in Appendix 4.

1. **MLA will promote the importance of research to the MLA membership and to other health information professionals, associations, funding agencies, and partners in order to improve health outcomes.**

To meet this goal, MLA will communicate its research commitment to its partners and stakeholders outside of MLA including associations, funding agencies, legislative staff, and international groups and publicize the research accomplishments of health sciences librarians to employers and to other health professions.

2. **MLA will promote the Research Imperative policy statement and its research priorities to the membership and to other associations, funding agencies, and partners.**

In addition to working within the association and with established funding agencies and partners, MLA will collaborate with faculty and students from graduate schools of library and information science and with academic library colleagues to pursue research questions from MLA's research priorities.

3. **MLA will recognize, reflect, and advance health sciences information research through its organizational structure.**

While proposing some changes in MLA's organizational structure, this recommendation also addresses MLA activities in the following areas: funding, mentoring, credentialing, recognition, employer support, and publications.

4. **MLA will provide and promote education and training to support health sciences information research.**

To accomplish this recommendation, MLA will work with academic programs to ensure that opportunities to develop quantitative and qualitative research knowledge and skills appear throughout the curriculum; provide a complete range of basic and advanced courses in quantitative and qualitative research methodology and in the critical analysis of research through MLA's continuing education (CE) program; and encourage graduate schools of library and information sciences to require master's degree students to undertake a research project in information science.

5. **MLA will disseminate health sciences information research through publications, CORE, and other means.**

MLA will continue to develop CORE as a repository of examples in research excellence.

6. **MLA will continue to annually assess the progress made toward enhancing the research knowledge and skills of its members and the achievement of its research agenda.**

Appendix 1: MLA Research Milestones: 1995–2007

Ann McKibbin, PhD

With the publication of its research policy statement in 1995, *Using Scientific Evidence to Improve Information Practice*, the Medical Library Association (MLA) signaled its commitment to evidence-based practice. Through the actions of its committees, sections, and chapters, the association demonstrated that commitment in the years that followed. Some of the significant milestones that can be attributed to or were influenced by this commitment appear below.

1995	MLA publishes <i>Using Scientific Evidence to Improve Information Practice: The Research Policy Statement of the Medical Library Association</i> .
1996	MLA Library Research Section changes its name to Research Section.
1996	MLA Research Section presents its first awards to the best Research Section paper and poster.
1997	MLA Research Section begins publishing a research column in the <i>MLA News</i> .
1997	MLA Research Section establishes the Research Mentoring Service.
1998	MLA and the American Medical Informatics Association hold a joint symposium on the “Health Informatics Research Agenda for the 21st Century.”
2000	MLA commissions the University of Maryland College of Library and Information Sciences to do a study on the value of library and information services .
2000	MLA commissions the Hay Group to conduct a study about how organizations compensate medical library professionals performing information technology (IT)–oriented roles and how that compensation compares to IT professionals.
2001	MLA conducts the first benchmarking survey with member hospital libraries and librarians.
2001	MLA conducts the first of a number of online surveys of members to research topics such as Web-based learning, technology credentialing, MLANET needs assessment, and electronic access to meeting information.
2001	MLA commissions the Hay Group to conduct the seventh triennial salary survey to determine economic trends in health sciences librarianship. This is the first Web-based survey.
2002	MLA sponsors the “Informationist Conference,” an invitational conference to facilitate a national discussion, derive a consensus definition, and develop recommendations for an action agenda for the “informationist” professional in clinical and research domains.
2003	MLA Assessment and Benchmarking Special Interest Group is formed to address the increased interest and requirements for institutional assessment, benchmarking, and outcome measures and to increase related programming at MLA annual meetings.
2003	MLA establishes the Donald A. B. Lindberg Research Fellowship that provides a \$25,000 grant, awarded annually by MLA through a competitive grant process. The purpose of this fellowship is to fund

	research aimed at expanding the research knowledgebase, linking the information services provided by librarians to improved health care and advances in biomedical research.
2003	MLA establishes the Benchmarking Network Editorial Board to oversee the benchmarking initiative that offers hospital, academic, and specialty health libraries an opportunity to learn more about benchmarking, compare data, establish best practices, and identify and work with a benchmarking partner. The second benchmarking survey is conducted and includes academic health center libraries.
2003	MLA and NLM support six hospital libraries' participation in the Association of Research Libraries LibQUAL study to measure client satisfaction with library services.
2003	MLA conducts its first online MLA membership survey.
2004	MLA requires the use of structured abstracts for paper and poster submissions for MLA '04.
2004	NLM establishes the informationist fellowships, believing that clinical care, biomedical research and education, and public health administration can be improved by including information specialists in context (informationists) in work and decision settings.
2004	MLA commissions the Eskind Biomedical Library, Vanderbilt University, to develop a report exploring the roles, settings, skills, and training for the information specialist in context.
2005	MLA appoints the Task Force on Research Policy Statement Revision to revise MLA's research statement.
2006	MLA lists twelve research courses on its Educational Clearinghouse.
2006	MLA purchases survey software to more easily survey the membership on a variety of topics.
2006	MLA embarks on its Health Information Literacy Research Project funded through a contract with NLM.
2007	MLA publishes The Research Imperative: The Research Policy Statement of the Medical Library Association, a revision of the policy statement published in 1995.

Appendix 2: Selected Bibliography—Evidence-based Librarianship

by Carol Perryman, Chapel Hill, NC and Joanne Marshall, FMLA, University of North Carolina—Chapel Hill

Pioneering studies and more recent work from the field.

- **Librarians' Roles in Supporting Evidence-based Health Care**
- **Librarians' Research and Publication**
- **Call to Action**
- **Research Methods and Issues**
- **Critical Appraisal of Library and Information Science Literature**
- **Examples of Evidence-based Research from Library and Information Science**

Librarians' Roles in Supporting Evidence-based Health Care

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Appendix 3: Methods Used to Develop 2007 MLA Research Policy Statement

At the outset, the task force took an evidence-based approach to revising the original policy statement. This approach comprised of a series of both qualitative and quantitative research methods. An outline of these methods follows.

Extensive Review of Literature

Task force members conducted two in-depth literature reviews. The purpose of these reviews was to develop a bibliography on the history of evidence-based librarianship and the research imperative for librarians. Finding these articles led to discussions related to the definition of research, definition of evidence-based librarianship, identification of the work of other professional associations, etc.

Online and Teleconference Meetings

The task force held a series of online and teleconference meetings throughout 2005 and 2006 to conduct its business.

Face-to-face Meetings and Open Forums

The task force met for the first time at MLA '05 in San Antonio, TX, and, in conjunction with the task force revising the education policy statement, held its first open forum. Attendees were asked to brainstorm the future of libraries and the impact of research on that future. The task force met for the second time in person in Phoenix during MLA '06 and prepared for the open forum. The open forum was held on May 23, and attendees were given an update on the progress of the task force and asked to react to initial findings of the key informants and questions posed.

Key Informant Interviews

The task force conducted a series of key informant in-person and telephone interviews. Fifty-one librarians and library leaders were interviewed. Each was asked a series of questions. Responses were recorded manually and analyzed under the leadership of Kathleen Ann McKibbon according to broad themes. The themes led to a series of longer thought pieces that provided the background and recommendations for the revised policy statement. Informant responses also influenced the organization and format of the new policy statement.

Questions posed:

1. Did you have a chance to read the current MLA statement?
2. What are the things that you like most about the statement?
3. What are the things you like least about the statement?
4. Would you suggest any changes in the specific content?
5. Would you suggest any changes in format?
6. Do you have suggestions for how MLA should disseminate the revised document?
7. Is there anything else you would like to add about the statement?
8. Is there anything else you would like to add about the role of research in health sciences librarianship?

Other informal interviews were conducted. NLM and other library associations that provide funding opportunities were contacted to identify the types of grants they offer to health sciences librarians for the purpose of conducting research.

Series of Thought Pieces

Task force members wrote a series of thought pieces that influenced the content of the revised policy statement. These thought pieces included: "Definition of Research" (Eldredge), "Evidence-based Medicine/Evidence-based Librarianship Trends" (Perryman and Marshall), and "MLA Research Milestones" (Funk).

Discussion of the Published Literature

One article in particular [Hallam G, Partridge H. Evidence-based library and information practice: whose responsibility is it anyway? *Evidence Based Libr Inform Prac* 2006;1(3):88 –94.] helped the task force articulate its philosophy about the role of research of health sciences librarianship. Discussion of this article solidified the direction and statements articulated in the revised policy.

Vignettes

Key informants were clear that practical examples would help demonstrate how practicing health sciences librarians can undertake research. The task force took these comments to heart and responded by organizing the statement on the Web and linking the statement to several vignettes that illustrate how health sciences librarians in the field can conduct big and little research projects influenced by their daily work.

Last Steps

The task force responded to several drafts of the document, organization of the Website, and vignettes via email throughout the months of November and December 2006. In January 2007, the task force met in person to finalize the documents. The task force presented the preliminary statement to the MLA Board at its February 2007 meeting. After receiving approval of the conceptual framework, the final document was submitted to the MLA Board in May 2007. Following acceptance by the MLA Board, a "year of research" featuring MLA's member and association initiatives related to research was proposed.

Appendix 4: Action Plan

The Research Imperative action plan is subdivided under each recommendation into short-term (achievable within one to two years), mid-term (achievable within two to five years), long-term (achievable after five years or more), and on-going.

1. MLA will promote the importance of research to the MLA membership and to other health information professionals, associations, funding agencies, and partners in order to improve health outcomes.

Short-term activities

- Ask the MLA Research Section to create a forum for identifying research priorities in the field.
- Require MLA units and chapters to include “What have we done to advance research” in their required reports.
- Launch a “Year of Research” initiative with a series of relevant events.
- Ask the Research Section to recommend annually to the MLA Board of Directors an MLA research agenda that suggests research topics of highest priority to the association.

Mid-term activities

- Regularly solicit and/or fund review articles for the *JMLA* that will synthesize the findings, for use by health sciences librarians, of one or more topics in the information sciences about which a significant body of literature exists.
- Encourage the MLA Credentialing Committee to increase the range of research-related activities for which it awards points. This could include coursework as well as participation in institutional review boards, theses or dissertation committees, or animal care and use committees at their home institutions.

On-going activities

- Communicate MLA’s research commitment to its partners and stakeholders outside of MLA, including associations, funding agencies, and legislative staff.
- Recognize the international nature of research and encourage and facilitate collaborative research among its members and librarians from around the world.

2. MLA will promote the Research Imperative policy statement and its research priorities to the membership and to other associations, funding agencies, and partners.

Mid-term activities

- Work with the Association of Academic Health Sciences Libraries (AAHSL) and hospital librarians to collaborate on developing research priorities for the profession.
- Explore opportunities for new information sciences research grants with federal and private funding organizations.

Long-term activities

- Promote MLA’s research priorities to graduate schools of library and information science, library faculty, and academic librarians so research questions from MLA’s priorities can be studied to add to the profession’s body of knowledge.

On-going activities

- Communicate its commitment to research to the MLA membership by promoting the association's Research Imperative on an ongoing basis.

3. MLA will recognize, reflect, and advance health sciences information research through its organizational structure.

Short-term activities

Credentialing

Recognize dissertation-related research through the Academy of Health Information Professionals.

Review and, if necessary, restructure MLA's credentialing program to provide enhanced recognition for producing and using research.

Extend academy membership credit for CORE contributions.

Publications

- Permit adding educational degrees for authors of research articles published in the *JMLA*. [Editor's note: MLA style allows degrees as part of bylines for the *JMLA*
<http://www.mlanet.org/publications/style/style_names_terms.html/#B2>.]

Structure

- Position a member of the Board of Directors to act as point person for all research-related initiatives undertaken by MLA.

Mid-term activities

Funding

- Increase the amount of funding available through the Thomson Scientific/MLA Doctoral Fellowship.

Mentoring

- Expand the MLA Mentoring Program to assist MLA members who wish to start or collaborate on research projects, and enlarge and publicize the research mentoring programs established by the Research Section.
- Establish a brokering service that matches practicing librarians who have research questions and suitable research populations with academic librarians and information scientists who have research expertise and commitment to conduct research.
- Organize a research methodology consulting service for MLA members.

Recognition

- Establish an award for the most rigorous and relevant original research article published in the *JMLA*.
- Recognize libraries that encourage or support research.
- Elevate the Research Section Award to an association research award.

Support

- Encourage library directors to recognize the role of research in professional life and incorporate the standards of evidence-based practice into management practices including making time available; enabling the role of librarians as partners in multidisciplinary research; and encouraging grant-seeking activities, presentations at conferences, and publication.
- Develop guidelines for research support services that health sciences institutions should provide to their librarian employees.
- Develop guidelines for employers who host graduate student internships.

Publications

- Structure MLA publications, including the *JMLA*, to give greater prominence to new research findings, critical analysis of research, and implications of research for practice.

Structure

- Dedicate an MLA staff position to research initiatives and programs in a manner similar to what now exists for education.

Long-term activities

Funding

- Identify the kinds of training fellowships or grants that are likely to attract beginning and mid-career librarians, including internships in health information science and informatics research, and encouraging funding agencies and employers to support these arrangements.
- Develop an MLA program of small research planning grants that will enable members to do the background work necessary to develop solid research proposals.
- Locate and publicize research funding mechanisms that are likely to be attractive to health sciences librarians and their collaborators.
- Encourage the development of funding programs to support applied research by health sciences librarians and their collaborators.

Recognition

- Establish a new recognition award acknowledging and celebrating a successful research project.
- Ensure that production and use of research is given increased recognition in MLA's awards program by establishing a new award for best research project of the year and by other appropriate means.
- Explore establishing an MLA award for multidisciplinary research.

Support

- Define model health sciences librarian positions that combine research with practice or teaching, and develop a strategy to establish and obtain funding for a small number of such positions in academic departments and in health sciences institutions.

Publications

Develop a program of joint meetings and publications with other professional associations whose members are natural research collaborators for health sciences librarians.

4. MLA will provide and promote education and training to support health sciences information research.

Mid-term activities

- Develop a suite of research-related courses that addresses areas of professional practice such as research design (hypothesis testing, qualitative, cohort, randomized controlled trials, systematic reviews, etc.) critical appraisal, and various types of statistical analyses.
- Work with NLM to establish a research training program to develop a cohort of mentors and mentees with a research project outcome, modeled after the NLM/AAHSL Leadership Fellowship program and the Woods Hole Informatics Institute.
- Establish a research specialization in the MLA CE program, similar to the Consumer Health Information Specialization (CHIS), that includes a complete range of basic and advanced courses in quantitative and qualitative research and in critical analysis.

Long-term activities

- Seek funding for pilot implementations of academic programs to develop quantitative and qualitative research knowledge and skills with an increased research focus.

- Encourage incorporating assessment of related research into relevant MLA CE courses and consider adding EBLIP applications to CE courses, where relevant.
- Encourage graduate schools of library and information science to integrate EBLIP applications in their courses, to include research projects in information science in the curriculum, and to develop research internships.

On-going activity

- Through the Research Section's Research Resources Committee, biennially maintain a robust list of research tools and resources for MLA members. These resources include the MLA Research Section's research and the Research Imperative's evidence-based librarianship bibliographies.

5. MLA will disseminate health sciences information research through publications, CORE, and other means.

Short-term activities

- Support the MLANET Editorial Board, working with the CORE editor, in marketing CORE to the membership as a vehicle for depositing and making research-related resources accessible to others.

Mid-term activities

- Request that the *JMLA* assist with knowledge translation of its research articles—identify actionable information in its pages through a synthesis of practical applications.
- Structure MLA publications, including the *JMLA*, to give greater prominence to new research findings, critical analysis of research, and implications of research for practice.

Long-term activities

- Require that MLA submit to CORE a complete set of tools, datasets, and descriptive text for all research studies funded by and conducted on behalf of the membership.

On-going activities

- Feature reports of research results at all MLA meetings.
- Use MLANET or other mechanisms to highlight research in progress and recent research findings with important implications for health sciences librarians.
- Encourage members to routinely and voluntarily contribute to CORE any relevant research materials and resources that could be useful to others.
- Require any individual or entity receiving research funding in whole or part from the association or its units to submit to CORE the appropriate links to or metadata describing instruments used, datasets, and descriptive text.
- Encourage the MLA Research Section to routinely enhance and maintain CORE's research-related content.

6. MLA will continue to annually assess the progress made toward enhancing the research knowledge and skills of its members and the achievement of its research agenda.

Long-term activities

- Conduct an impact study of the research policy statement to see how well MLA is advancing the association's research imperative.

On-going activities

- Annually assess the goals, recommendations, and the action plan outlined in the Research Imperative and report findings to the membership.